

IN THE CLAIMS

1. (Cancelled)

2. (Currently Amended) The system as set forth in Claim 21,
wherein:

said camera comprises an optical character recognition (OCR) type camera.

3. (Currently Amended) The system as set forth in Claim 21,
wherein:

said camera comprises a bar code reader (BCR) type camera.

4. (Currently Amended) The system as set forth in Claim 21,

further comprising:

a pair of conveyor belt rollers around which said conveyor belt is routed such that said conveyor belt comprises an outer run section, disposed remote from said front surface of said housing and said camera view port, and an inner run section disposed adjacent to said front surface of said housing and said camera view port.

5. (Original) The system as set forth in Claim 4, wherein:

said housing has a predetermined longitudinal extent; and

said pair of conveyor belt rollers are disposed at longitudinal extremes of said housing such that no conveyor belt components, other than said inner run section of said conveyor belt, are disposed in contact with said front surface of said housing and said camera view port whereby said inner run section of said conveyor belt can be conveyed across said front surface of said housing upon said air bearing layer in a substantially frictionless manner.

6. (Currently Amended) The system as set forth in Claim 21, wherein:

said inner run section of said conveyor belt has a substantially planar configuration defining a conveyance plane for the plurality of mail articles; and

said front surface of said housing has a substantially curvilinear configuration such that a first upstream end portion of said front surface of said housing diverges away from said conveyance plane of said inner run section of said conveyor belt and thereby defines therewith an entrance slot within which air discharged from said air plenum means defined within said housing causes the plurality of mail articles to be aerodynamically lifted into engagement with said inner run section of said conveyor belt, while a second downstream end portion of said front surface of said housing likewise diverges away from said conveyance plane of said inner run section of said conveyor belt and thereby defines therewith an exit slot within which air discharged from said air plenum means defined within said housing causes the plurality of mail articles to experience aerodynamic lift so as to thereby be maintained in engagement with said inner run section of said conveyor belt.

7. (Currently Amended) The system as set forth in Claim 21, wherein:

said housing has a predetermined vertical extent;
and

said air plenum means comprises at least one apertured strip from which said air streams are generated, said at least one apertured strip having a predetermined vertical extent which is less than said predetermined vertical extent of said housing.

8. (Original) The system as set forth in Claim 7, wherein:

said air streams generated from said at least one apertured strip of said air plenum means are characterized by means of an air pressure value which is substantially less than atmospheric pressure; and

said at least one apertured strip, having said predetermined vertical extent which is less than said predetermined vertical extent of said housing, is located at a substantially central vertical location within said housing such that ambient atmospheric pressure zones are disposed above and below said sub-atmospheric air streams generated

from said air plenum means so as to confine said sub-atmospheric air streams to predetermined locations for acting upon the plurality of mail articles.

9. (Original) The system as set forth in Claim 4, wherein:

at least one of said conveyor belt rollers comprises a drive roller; and

a servo drive motor is operatively connected to said at least one conveyor belt drive roller.

10. (Cancelled)

11. (Currently Amended) The system as set forth in Claim ~~10~~
22, wherein:

said camera comprises an optical character recognition (OCR) type camera.

12. (Currently Amended) The system as set forth in Claim ~~10~~
22, wherein:

said camera comprises a bar code reader (BCR) type
camera.

13. (Currently Amended) The system as set forth in Claim ~~10~~
22, further comprising:

a conveyor belt, for conveying the plurality of
mail articles across said camera view port, comprising an
outer run section, disposed remote from said front surface
of said housing and said camera view port, and an inner run
section disposed adjacent to said front surface of said
housing and said camera view port.

14. (Original) The system as set forth in Claim 13, wherein:

only said inner run section of said conveyor belt,
is disposed in contact with said front surface of said hous-
ing and said camera view port whereby said inner run section
of said conveyor belt can be conveyed across said front sur-

face of said housing upon said air bearing layer in a substantially frictionless manner.

15. (Currently Amended) The system as set forth in Claim 22
~~10~~, wherein:

said inner run section of said conveyor belt has a substantially planar configuration defining a conveyance plane for the plurality of mail articles; and

said front surface of said housing has a substantially curvilinear configuration such that a first upstream end portion of said front surface of said housing diverges away from said conveyance plane of said inner run section of said conveyor belt and thereby defines therewith an entrance slot within which air discharged from said air plenum means defined within said housing causes the plurality of mail articles to be aerodynamically lifted into engagement with said inner run section of said conveyor belt, while a second downstream end portion of said front surface of said housing likewise diverges away from said conveyance plane of said inner run section of said conveyor belt and thereby defines therewith an exit slot within which air discharged from said

air plenum means defined within said housing causes the plurality of mail articles to experience aerodynamic lift so as to thereby be maintained in engagement with said inner run section of said conveyor belt.

16. (Currently Amended) The system as set forth in Claim ~~10~~ 22, wherein:

said housing has a predetermined vertical extent;
and

said air plenum means comprises at least one apertured strip from which said air streams are generated, said at least one apertured strip having a predetermined vertical extent which is less than said predetermined vertical extent of said housing.

17. (Original) The system as set forth in Claim 16, wherein:

said air streams generated from said at least one apertured strip of said air plenum means are characterized by means of an air pressure value which is substantially

less than atmospheric pressure; and

said at least one apertured strip, having said predetermined vertical extent which is less than said predetermined vertical extent of said housing, is located at a substantially central vertical location within said housing such that ambient atmospheric pressure zones are disposed above and below said sub-atmospheric air streams generated from said air plenum means so as to confine said sub-atmospheric air streams to predetermined locations for acting upon the plurality of mail articles.

18. (Original) The system as set forth in Claim 13, wherein:

said conveyor belt is routed around a pair of rollers at least one of which comprises a drive roller; and

a servo drive motor is operatively connected to said at least one conveyor belt drive roller.

19. (Cancelled)

20. (Currently Amended) The method as set forth in Claim ~~19~~
23, comprising the additional step of:

providing said front surface of said housing with a substantially curvilinear configuration such that a first upstream end portion of said front surface of said housing diverges away from said article flow path and thereby defines therewith an entrance slot within which said generated air discharged from said housing causes the plurality of mail articles to be conveyed in an aerodynamically lifted manner along said article flow path so as to establish said substantially smooth, frictionless, and jitter-free conveyance of the plurality of mail articles along said article flow path, while a second downstream end portion of said front surface of said housing likewise diverges away from said article flow path and thereby defines therewith an exit slot within which said generated air discharged from said housing causes the plurality of mail articles to be conveyed in an aerodynamically lifted manner along said article flow path so as to maintain said substantially smooth, frictionless, and jitter-free conveyance of the plurality of mail articles along said article flow path.

21. (New) A mail article transportation and stabilization system, for use in conjunction with a camera-based scanning system whereby clear, accurate, and complete scanning, imaging, and reading of address information, contained upon a plurality of mail articles, can be achieved, comprising:

a housing comprising a front surface;

a camera fixedly disposed within said housing and comprising a camera view port defined within said front surface of said housing and across which a plurality of mail articles are to be serially conveyed;

a conveyor belt having a conveying surface for serially conveying the plurality of mail articles across said camera view port of said camera in a longitudinal direction such that information contained upon the plurality of mail articles can be scanned, imaged, and read by said camera; and

air plenum means defined within said housing for generating air streams outwardly from said housing and toward said conveying surface of said conveyor belt, upon which the plurality of mail articles are being conveyed, so as to force the plurality of mail articles onto said conveying surface of said conveyor belt, and to define an air bearing layer upon which said conveyor belt, and the plural-

ity of mail articles being conveyed by said conveyor belt, can be conveyed in a substantially smooth, frictionless, and jitter-free manner across said camera view port of said camera such that said camera can scan, image, and read the information contained upon the plurality of mail articles in an accurate, clear, and complete manner.

22. (New) A mail article transportation and stabilization system; for use in conjunction with a camera-based scanning system whereby clear, accurate, and complete scanning, imaging, and reading of address information, contained upon a plurality of mail articles, being conveyed past the camera-based scanning system, can be achieved, comprising:

a housing comprising a front surface;

a camera fixedly disposed within said housing and comprising a camera view port defined within said front surface of said housing and across which a plurality of mail articles are to be serially conveyed in a longitudinal direction such that information contained upon the plurality of mail articles can be scanned, imaged, and read by said camera; and

air plenum means defined within said housing for generating air streams outwardly from said housing, and toward the plurality of mail articles being conveyed, so as to define an air bearing layer upon which the plurality of mail articles, being conveyed in the longitudinal direction across said camera view port, can be conveyed in a substantially smooth, frictionless, and jitter-free manner across said camera view port of said camera such that said camera can scan, image, and read the information contained upon the plurality of mail articles in a clear, accurate, and complete manner.

23. (New) A method for transporting mail articles past a camera-based scanning system in order to obtain clear, accurate, and complete scanning, imaging, and reading of address information contained upon a plurality of mail articles, comprising the steps of:

fixedly disposing a camera within a housing such that a camera view port is defined within a front surface of said housing;

serially conveying a plurality of mail articles

along a flow path which extends across said camera view port of said camera such that information contained upon the plurality of mail articles can be scanned, imaged, and read by said camera; and

generating air streams outwardly from said housing, and toward the plurality of mail articles being conveyed across said camera view port of said camera, so as to define an air bearing layer upon which the plurality of mail articles, being conveyed across said camera view port of said camera, can be conveyed in a substantially smooth, frictionless, and jitter free manner across said camera view port of said camera such that said camera can scan, image, and read the information contained upon the plurality of mail articles in a clear, accurate, and complete manner.